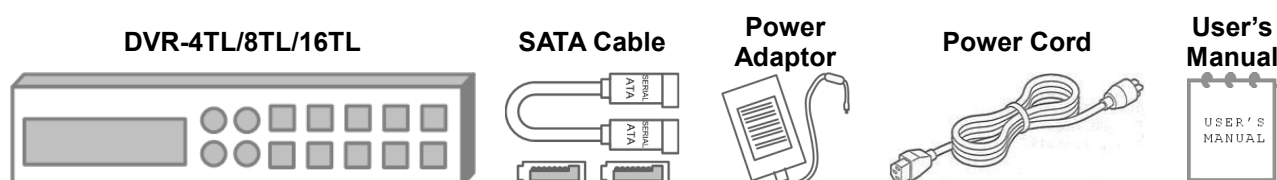


DVR-4TL/8TL/16TL

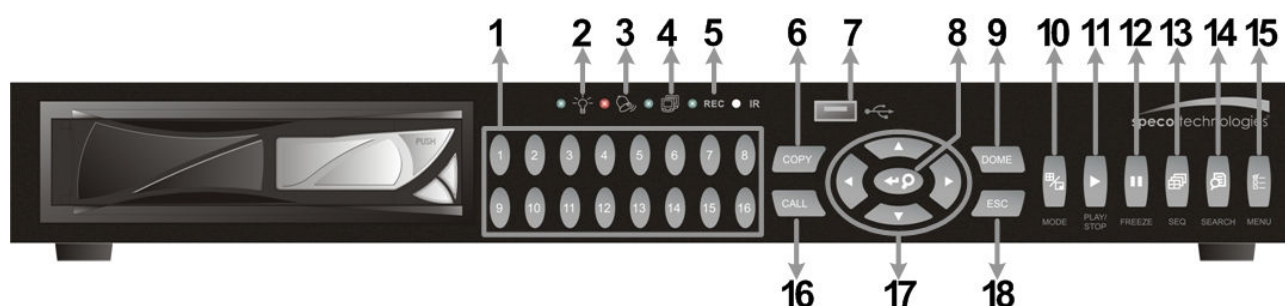
Setup Guide

Package Content

Inspect the DVR's packaging. Make sure that the **DVR-4TL/8TL/16TL** is packed properly. Remove all items from the box and make sure it contains the following items.



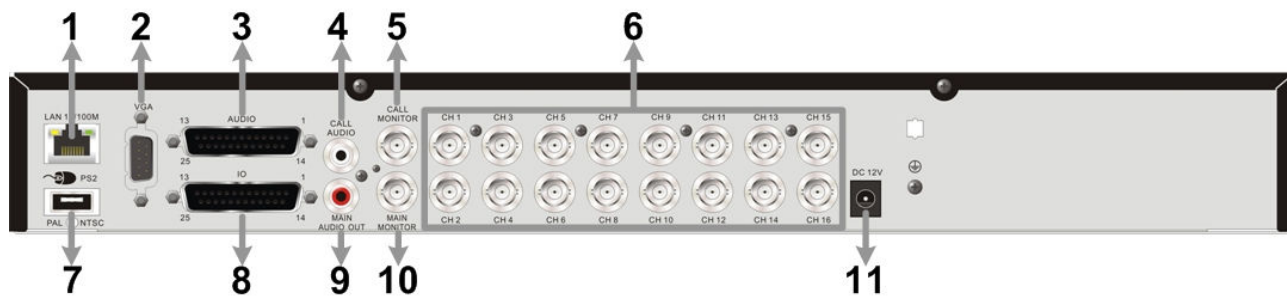
Front Panel



1	Channels	1. In Live and Playback modes, press any key to view the corresponding video in full-screen. 2. In "Input Interface", 1~10 can be used for direct input of numbers 0~9. 3. In "Dome Camera Control" mode, 1 is for entering the Set/ Go preset menu; 2 is for hiding or displaying the hint screen; 11~16 is for quick access of preset points 1~6.
2	Power LED	Lights up when a power source is connected.
3	Alarm LED	Lights up when an alarm is triggered.
4	Network LED	Lights up when network is connected. In addition, it blinks when data is being transmitted via the network.
5	Record LED	Blinks when videos are being recorded.
6	COPY	Copy is used for marking time in quick video export function.
7	USB 2.0 Port	The USB 2.0 port allows users to connect an external USB device to the unit, such as a USB ThumbDrive, Flashdrive or a USB mouse.
8	ENTER	1. In OSD menu or selection interface, press this key to make a selection or save settings. 2. In live full-screen viewing mode, press this key to view a 2× zoom image; press it again to return.
9	DOME	Press this key to enter Dome Camera Control mode.
10	MODE	Press this key to view full-screen or multiple window modes.
11	PLAY/STOP	Press once to start the playback of recorded video. Press again to exit.
12	FREEZE	Press this key to freeze the current viewing screen.
13	SEQ	Press this key to start automatic sequence display of cameras.
14	SEARCH	Press this key to search recorded video by date/time or event.

15	MENU	Press this key to enter the OSD setup menu.
16	CALL	Press this key to enter Call Monitor Control mode.
17	Direction Keys	1. In Zoom mode, these keys function as normal direction keys. 2. In the OSD setup menu, the direction keys are used to move the cursor to previous or next fields. To change the value in the selected field, press UP / DOWN keys.
18	ESC	Press this key to cancel or exit from certain control mode.

Rear Panel



1	LAN 10/100M (RJ-45)	The DVR is capable of networking. Once the unit is connected to the LAN network, users can remotely access the DVR through the remote software and SpecoRemote on a PC.
2	Main Monitor-VGA	The DVR can connect to a monitor via the VGA connector.
3	Audio In	Audio In connectors are for the DVR to connect audio source devices. For DVR-4TL , 4 RCA Audio In connectors will be provided; whereas for DVR-8TL and DVR-16TL , a D-Sub Audio In connector is provided.
4	Call Monitor Audio Out	Call Monitor Audio Out RCA connector is provided for the DVR to connect an audio output device (e.g. an amplified speaker).
5	Call Monitor (BNC)	The call monitor is used to display full screen video of all installed cameras in sequence. The BNC Call Monitor connector allows users to connect the DVR with an optional call monitor.
6	Video In (BNC)	A group of BNC connectors is provided for video input streams from installed cameras.
7	USB Port	This USB port allows users to connect a PS/2 mouse via a converter.
8	Alarm I/O & RS-485	The DVR provides alarm I/O and RS485 ports that offer users the flexibility required to connect the DVR to other devices.
9	Main Monitor Audio Out	Main Monitor Audio Out RCA connector is provided for the DVR to connect an audio output device (e.g. an amplified speaker).
10	Main Monitor-BNC	The DVR can connect to a monitor via a BNC connector.
11	Power Jack	The DVR has a free voltage DC power connection jack. Please connect the power supply adapter shipped with the unit.

Pin Definition of Alarm I/O & RS-485, and Audio In

Alarm I/O & RS-485:

DVR-4TL:

Pin	Definition	Pin	Definition	Pin	Definition	Pin	Definition
1	Alarm Out Open	5	Alarm In 1	9	Alarm Out Close	13	GND
2	Alarm Out COM	6	Alarm In 2	10	GND	14	GND
3	RS485 D+	7	Alarm In 3	11	GND	15	GND
4	RS485 D-	8	Alarm In 4	12	GND		

DVR-8TL & DVR-16TL:

Pin	Definition	Pin	Definition	Pin	Definition
1	Alarm Out Open	10	Alarm In 5	19	Alarm In 10 (DVR-16TL)
2	Alarm Out COM	11	Alarm In 6	20	Alarm In 11 (DVR-16TL)
3	RS485 D+	12	Alarm In 7	21	Alarm In 12 (DVR-16TL)
4	RS485 D-	13	Alarm In 8	22	Alarm In 13 (DVR-16TL)
5	Reserved	14	Alarm Out Close	23	Alarm In 14 (DVR-16TL)
6	Alarm In 1	15	Reserved	24	Alarm In 15 (DVR-16TL)
7	Alarm In 2	16	Reserved	25	Alarm In 16 (DVR-16TL)
8	Alarm In 3	17	Reserved		
9	Alarm In 4	18	Alarm In 9 (DVR-16TL)		

Audio In (DVR-8TL & DVR-16TL only):

Pin	Definition	Pin	Definition	Pin	Definition
1	Audio 1	10	GND	19	Audio 12 (DVR-16TL)
2	Audio 3	11	GND	20	Audio 14 (DVR-16TL)
3	Audio 5	12	GND	21	Audio 16 (DVR-16TL)
4	Audio 7	13	Reserved	22	GND
5	Audio 9 (DVR-16TL)	14	Audio 2	23	GND
6	Audio 11 (DVR-16TL)	15	Audio 4	24	GND
7	Audio 13 (DVR-16TL)	16	Audio 6	25	Reserved
8	Audio 15 (DVR-16TL)	17	Audio 8		
9	GND	18	Audio 10 (DVR-16TL)		

Power On the DVR

Please follow the proper power on procedures to avoid damaging the DVR.

- Connect all necessary components, e.g. monitor and cameras, before powering the DVR.
- Check the type of power source before connecting the power adaptor to the DVR. The acceptable power input is between AC110V ~ AC240V.

Select Viewing Mode:

- Press **MODE** repeatedly to select the wanted display mode. The available viewing modes are full-screen, 2×2, 3×3, and 4×4 split-window.
- Press **FREEZE** to pause the current viewing image.
- Refer to the following for a brief description of the icons that are shown on the monitor.

Icon	Description	Position	Icon	Description	Position
▶	Playback Mode	Lower-left corner		Key Locked	Center-bottom
N	Not Logged-in	Upper-right corner	1~8	User's Authority Level	Upper-right corner

Basic Setup

Enter the OSD main menu to setup some basic configurations of the DVR. The basic configuration can be set via either the DVR or on SpecoRemote.

Enter OSD Main Menu:

- Press **MENU** to enter the OSD main menu.
- Enter username and password. The default username and password is **admin** and **1234**.
- Press **MENU** again to quickly input the default username "**admin**".
- It is strongly suggested to change the password to prevent unauthorized access.

Date / Time Setting:

Follow steps below to setup date/time before the recording starts.

- Select **<Date/Time>** in System Setup menu.
- Select the date and time using **LEFT/RIGHT** keys; then adjust the value using **UP/DOWN** keys.
- The new date and time settings take effect after the changes are confirmed.

Language Setting:

If users wish to change language of the DVR system, follow the steps below.

- Select **<Language>** in System Setup menu and press **ENTER**.
- Press the **UP/DOWN** keys to select the desired language.

Network Setup

Configure the LAN setup for the DVR to properly function with Ethernet connection.

- From OSD main menu, select **<System Setup>** → **<Network Setup>**, set the **<LAN Select>** item to **<LAN>** or **<PPPoE>** according to the network application, and enter **<LAN Setup>**.
- For DHCP, set the DHCP to **<ON>**. The IP address, Netmask, Gateway and DNS settings are retrieved from network servers. DHCP is dynamic and the settings change from time to time.
- For Non-DHCP users, set the DHCP to **<OFF>**. Enter an IP address, Netmask, Gateway, and DNS settings. Please obtain the information from the network service provider.
- To change the IP address, Netmask, Gateway and DNS value, press **UP/DOWN** keys to move the cursor to the item. Use **LEFT/RIGHT** keys to access each section of the value and press **ENTER**, then change the value using **UP/DOWN** keys.
- PPPoE users must set the **<PPPoE Account>**, **<PPPoE Password>** and **<PPPoE Max Idle>** as well.
- When the settings are complete, press **ENTER** to confirm and save the settings; or **ESC** to abort.

Dome Camera Control

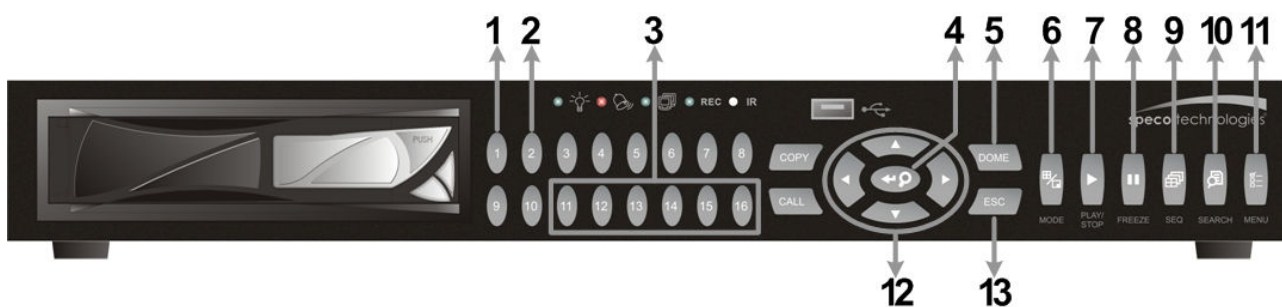
Dome Camera Connection & Settings:

- See section [Pin Definition of Alarm I/O & RS-485, and Audio In](#) for RS-485 port pin definition.
- Refer to the following figure. Connect the R+, R- terminals on the dome camera to the D+, D- terminals on the RS-485 port by RS-485 cable respectively.



- To set up dome camera's protocol and ID, press **MENU** to access the OSD main menu, and select **<Camera Setup>**. The available protocols include **<Speco>**, **<DSCP>**, **<AD422>**, **<Pelco D>**, **<Pelco P>**, **<Fastrax 2>**, **<JVC>**, **<Panasonic_C>**, and **<Panasonic_N>**. The default is **<None>**. Note that ID number must match the ID address defined by the dome camera.
- To configure the RS-485 parameters, select **<System Setup>** from OSD main menu, and then select **<RS485 Setup>**. The default RS-485 settings are 9600 Baud, 8 Data Bits, 1 Stop Bit and No Parity.

Control Buttons in Dome Camera Control Mode:



1	Set / Go Preset	5	Enter Dome Camera Control Mode	9	Focus Near	13	ESC
2	Toggle Hint Screen	6	Iris Open	10	Zoom Out		
3	Go Presets 1~6	7	Iris Close	11	Zoom In		
4	Enter / Auto	8	Focus Far	12	Pan / Tilt		

Basic Playback Operation

Search by Time:

- Press **SEARCH** to enter the Search menu.
- Move the cursor to "From" and press **ENTER**. The DVR will start playing recorded video from the specified "From" time.
- Move the cursor to "End" and press **ENTER**. The DVR will start playing recorded video from the specified "End" time.
- Move the cursor to "Select" and press **LEFT/RIGHT** to choose date/ time. Press **ENTER** and adjust the values by **UP/DOWN** keys. Press **ENTER** again to confirm or press **ESC** to abort.
- Move the cursor to <**Begin Playback**> and press **ENTER** to start playing back recorded video of the selected time. Press **PLAY/STOP** again to return to live video.



NOTE: If there is no available recorded video that matches the specified time and date, the unit starts to playback from the next available video.

Calendar Search:

- Press **SEARCH** to enter the Search menu.
- Move the cursor to <**Calendar Search**> and press **ENTER**. A calendar will show up.
- Move the cursor to year/ month and press **ENTER**. Then press **UP/DOWN** to adjust the value and press **ENTER** again to confirm.
- Move the cursor to select any day shown in bold font, and a time ruler will be displayed.
- Press **ENTER** and an arrow will show up above the time ruler. Press **LEFT/RIGHT** to select a desired time. Alternatively, move the cursor to the time shown at the bottom. Press **ENTER** and adjust the values of hour/ minute/ second via **UP/DOWN** keys.
- Note that the time blocks highlighted in red represent events occurred.
- Move the cursor to the playback icon (▶) and press **ENTER** to start playing back the video.

Search by Event:

- Press **SEARCH** to enter the Search menu.
- To search event video that was recorded on a specific camera, use **LEFT/RIGHT** keys to move the cursor and press **ENTER** to select or de-select a channel.
- Move the cursor to <**Event List**> and press **ENTER** to list the event video of the selected channels.
- The list displays each event by date, time, triggered camera and alarm type. The latest recorded event video will be listed on the top. To exit the event list, press **ESC**.
- Use **UP/DOWN** keys to scroll through the Event List. Press **ENTER** to playback the selected event record.



NOTE: The event list displays only the first 1024 events; as some events are deleted, others are displayed.

Playback Controls:

Button	Description
LEFT	The button is for rewinding the recorded video while playing back. Press the button repeatedly to increase the speed of reverse playback by 1x, 2x, 4x, 8x, 16x, or 32x.
RIGHT	The button is used to play the recorded video fast forward. Press the button repeatedly to increase the speed of forward playback by 1x, 2x, 4x, 8x, 16x, or 32x.
FREEZE	Press FREEZE to pause the playback video. When the recorded video is paused, press LEFT / RIGHT to resume playback video single step reverse / forward respectively. Press FREEZE again to continue playing back video.
Play/Stop	Press to start the playback or to stop playing back video and return to live mode.

Connect the DVR via SpecoRemote

Setup Requirements:

- Make sure the PC is connected to the Internet.
- Obtain IP address of the **DVR-4TL/8TL/16TL**. To check the DVR's IP address, press **MENU** on the front panel and select **<System Setup> → <Network Setup> → <LAN Setup> → <IP>** to check the IP.

Changing Internet Setting:

- Start the IE; select **<Tools>** from the main menu of the browser, then **<Internet Options>** and then click the **<Security>** tab.
- Select **<Trusted sites>** and click **<Sites>** to specify its security setting.
- Uncheck "Require server verification (https:) for all sites in this zone". Type the IP address of the unit in field and click **<Add>** to add this website to the zone.
- In the Security Level area, click **<Custom Level>**. Under **<ActiveX controls and plug-ins>**, set all items to **<Enable>** or **<Prompt>**.
- Click **<OK>** to accept the settings and close the **<Security Settings>** screen.

Using SpecoRemote:

- Start the IE and enter the IP address of the **DVR-4TL/8TL/16TL** in the address bar.
- The ActiveX controls and plug-ins dialog will show twice for confirmation; click **<YES>** to accept ActiveX plug-ins. The **SpecoRemote** plug-ins will be downloaded and installed on the PC automatically when the connection is successfully made.



NOTE: Do not enter any leading "0" characters in the address, for example, "192.068.080.006" should be entered "192.68.80.6".



NOTE: If the default trigger port 80 is changed into another one, port 81 for example, then the IP address should be entered as "192.68.80.6:81".

- Version verification starts automatically to verify whether Speco**Remote** was installed. This process may take up to 30 seconds.
- When the software is completely downloaded and installed, the Login Screen is displayed.
- Enter the username and password. The default usernames and passwords are **admin / 1234** and **user / 4321**.

The following picture shows the display window of the Speco**Remote**:



Refer to the table below for brief description of functional items:

Item	Description	Item	Description
1	Instant Recording	10	Search Event List
2	Smooth the Image	11	Capture Snapshot
3	Deflicker On/Off at Playback	12	4:3 Viewing Aspect
4	Audio On/Off	13	HDD Status
5	Select Camera	14	Playback Control
6	Display Mode	15	Select Picture Size
7	View Live Camera	16	Select Bandwidth Speed
8	Playback Video	17	Download DVRPlayer
9	Setup Menu		

For more information on Speco**Remote**, see User's Manual.

SpecoRemote Playback

Playback Remote Video:

- Click **<Play>** on the main window toolbar, and then **<Remote Playback>** tab.
- The **<From>** and **<To>** on top of the screen display the date and time from which recorded video is available for playback.
- Choose **<Playback>** in **<Select>** field for playback recorded video.
- Select the date and time of the segment to playback from the **<Start>** field. The date and time can be changed either by typing desired numbers directly or using the arrow buttons.
- Click **<OK>** to start the playback, or click **<Close>** to abort.

Playback Local *.drv File:

- Click **<Play>** on the main window toolbar, and then **<Local Playback>** tab.
- Click **<Open>** and the file selection screen is displayed. Select the *.drv video file to playback and click **<OK>**.
- Click **<OK>** to start the playback, or click **<Cancel>** to abort.
- View the video playback using the Playback controls.
- To end the playback, click **<Live>** to return to live video.

Playback Local *.avi Files:

- Start the windows media player or other media player from **<Start>** menu (or any other possible access).
- Select **<File>** and then **<Open>**.
- Select the wanted *.avi file, and click **<Open>**.

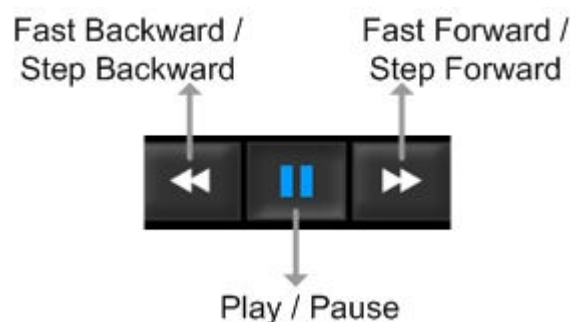


NOTE: The *.avi files for each channel are stored separately. Therefore the video can be played back in single channel, full screen mode only.

Playback Event Video

- Click **SEARCH** on the main window toolbar. The Event List appears.
- Scroll through the Event List and highlight the interested events.
- Double-click on the desired event to view the event video.

Playback Controls:



Mobile View Software

The **DVR-4TL/8TL/16TL** provides mobile surveillance software called Mobile View Software. This allows users to monitor via a mobile device with internet connection. The Mobile View Software can be downloaded from the official website <http://www.specotech.com/software.htm>. Refer below for a brief introductions of installation on a JAVA mobile device and basic operations.

Download and Installation:

- Access the java installation menu on a JAVA mobile device and connect the official website to directly download the software to the mobile device.
- After the download has completed, follow the instruction shown on the screen of the JAVA mobile device to installed Mobile View software.

Basic Operation:

Locate the installed Mobile View software and launch it. The main window will be shown as below.



- Access <Connect to device> and users can create bookmarks for DVRs via entering **hostname/IP address, port, username, and password** of the devices.
- When a DVR is connected, the available functions will be listed as shown above on the right. Users can select <Live Monitoring> to view the live video. <Normal Playback> and <Event Playback> allow users to playback recorded normal and event videos. <Menu Config> enables users to setup part of the DVR's configuration.
- <Snapshot Viewer> is where the snapshot pictures can be viewed after they are saved to the database of the mobile devices.

Refer to Mobile View Software User's Manual for installation on Black Berry phones and detailed information of all functions.